

Preface

With the steady growth of interactive computing, the use of generalized data base and data communications systems has become widespread. Consequently, our need to organize and systematize our knowledge in this area has become pronounced. Books and dedicated issues of professional journals have appeared recently that classify data base systems and help us to refine our understanding of their operation.

When the editors first decided to produce an issue of the IBM Systems Journal on the data base-data communications theme, our goal was to build upon previous publications, to find papers that would extend our readers' practical knowledge of data base products and methods. We felt, however, that we could not assume that all readers would begin with the same knowledge. Moreover, to study even a widely recognized system, such as IMS/VS, requires referring to a large number of manuals that are often not at hand. Consequently, we decided to publish two issues on data base systems, with data communications included where appropriate.

In this issue, we have papers that describe two widely used data base systems designed to meet differing application requirements. IMS/VS is a general-purpose data base and data communications system. In the IMS/VS design, emphasis is on flexibility; the system serves the needs of many users who run the varied applications of many industries. The airline control pro-

gram, in contrast, is designed to meet the high response and high reliability requirements of the airline reservation application. Each system has facilities for storage management, for data base support, for multiprogramming, for testing, and for recovery and restart. Because the two systems differ in structure and philosophy, these facilities are implemented differently in each. These papers provide the reader with the opportunity to compare two data base systems with widely contrasting application and performance requirements.

In our next issue, we plan to present additional systems and techniques for the data base user. In preparing these two issues, we reviewed a large number of manuscripts. Particular thanks are due to Professor Edgar Sibley of the University of Maryland who read them all, and whose comments and criticism have helped the authors to strengthen their papers and helped the editors to combine them into a cohesive group.

The cover of this issue was designed using a computer-aided color graphic display system developed by the User-Oriented Systems Department of the IBM Research Laboratory in San Jose. My thanks to Robin Williams for his help with this project.

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Editor